

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|--|---|---|
| Applicant's or agent's file reference W1.2106PCT | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/EP2004/050522 | International filing date (day/month/year) 14.04.2004 | Priority date (day/month/year) 14.04.2003 |
| International Patent Classification (IPC) or national classification and IPC | | |
| Applicant KOENIG & BAUER AKTIENGESELLSCHAFT | | |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 15 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 6 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

| | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input checked="" type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

| | |
|---|-----------------------------------|
| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
 - ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
 - ☐ the international application as originally filed/furnished
 - ☒ the description:
 - pages 2-9 as originally filed/furnished
 - pages* 1, 1a received by this Authority on 21.10.2004 with letter of 19.10.2004
 - pages* _____ received by this Authority on _____
 - ☒ the claims:
 - nos. _____ as originally filed/furnished
 - nos.* _____ as amended (together with any statement) under Article 19
 - nos.* 1-20 received by this Authority on 21.10.2004 with letter of 19.10.2004
 - nos.* _____ received by this Authority on _____
 - ☒ the drawings:
 - sheets 1/2-2/2 as originally filed/furnished
 - sheets* _____ received by this Authority on _____
 - sheets* _____ received by this Authority on _____
 - ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 3-12, 14, 15

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 3-12, 14, 15

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☒ See Supplemental Box for further details.

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees the applicant has:
 - ☐ restricted the claims.
 - ☒ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted the claims nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
 - ☐ complied with.
 - ☒ not complied with for the following reasons:

see supplemental box
4. Consequently, this report has been established in respect of the following parts of the international application:
 - ☐ all parts.
 - ☒ the parts relating to claims Nos. 1, 2, 4-20

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------------|-----|
| Novelty (N) | Claims | 1, 2, 4-20 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1, 2, 4-20 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1, 2, 4-20 | YES |
| | Claims | | NO |

2. Citations and explanations (Rule 70.7)

1. This report makes reference to the following documents:

D1: US 3 948 504 A

D2: DE-A-19837117

D3: DE-A-4325725

2. Group I

Document D1 (see, in particular, column 2, line 26 - column 6, line 56; figures 1-3) is considered to constitute the prior art closest to the subject matter of claim 1 and discloses (the references in parentheses are to that document):

a process for producing a printed product, the process having the following steps:

- (a) a material web is unwound from a first roller (11-14);
- (b) the material web is printed;
- (c) the printed material web is wound so as to form a new roller (21-24);
- (d) a first printed material web (29) is unwound

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- from a roller (28);
- (e) a second printed material web (30) is unwound from another roller;
 - (f) the material webs (29, 30) are joined in a superstructure;
 - (g) each of the material webs (29, 30) is subdivided into a plurality of web sections (32);
 - (h) the web sections (32) are mixed by an angle bar arrangement (33, 82a-c);
 - (i) the mixed web sections (32) are longitudinally folded;
 - (j) the web sections (32) are transversely cut and folded (claim 1).

The subject matter of claim 1 therefore differs from the known process in that steps (a) to (c) are carried out at a higher web speed than steps (d) to (j).

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The present invention can therefore be considered to address the problem of increasing production speed.

The solution to this problem, as proposed in claim 1 of the present application, involves an inventive step (PCT Article 33(3)) for the following reasons:

| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|--|
| | <p>Document D1 contains no indication of the web speed in the web-fed printing machine or in the further processing device.</p> <p>Document D2 describes a process for producing printed products, in which paper webs are printed, stacked, joined, longitudinally folded, cut and wound. D2 contains no indication of web speed.</p> <p>Document D3 describes a process for printing foil webs. Document D3 contains no indication of the relationship between web speed in the printing machine and web speed in a further processing device.</p> |
| 3. | <p><u>Group II</u></p> <p>Document D1 (see, in particular, column 2, line 26 - column 6, line 56; figures 1-3) is considered to constitute the prior art closest to the subject matter of claim 2 and discloses (the references in parentheses are to that document):</p> <p>a further processing device for a web-fed printing press, the device having the following features:</p> <ul style="list-style-type: none">(a) a plurality of roller changers (28) are provided for unwinding printed material webs (29, 30);(b) a draw-in mechanism (56-64) is arranged after each roller changer;(c) a longitudinal cutting device (31) is arranged directly after the draw-in mechanism |

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

for cutting the material web into web sections (32);

- (d) an angle bar arrangement (33, 82a-c) is provided after the longitudinal cutting device (31);
- (e) at least one former (88-91), one transverse cutting device (98, 99) and at least one transverse folding apparatus are arranged after the angle bar arrangement.

The subject matter of claim 2 therefore differs from the known process in that each roller changer of the further processing installation comprises its own position-controlled electric drive; a controller controls these electric drives in such a way that successive, identical printed images on two material webs match one another or are kept at a constant distance, i.e. in registration.

The subject matter of claim 2 is therefore novel (PCT Article 33(2)).

The present invention can therefore be considered to address the problem of providing a suitable drive for a roller changer.

The solution to this problem, as proposed in claim 2 of the present application, involves an inventive step (PCT Article 33(3)) for the following reasons:

Documents D1, D2 and D3 do not suggest providing

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| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|--|
|-----------|--|

the roller changers of a further processing installation with their own position-controlled electric drives and regulating these individual drives of the roller changers so as to maintain registration.

4. Claims 4-20 are dependent on claims 1 and 2 and therefore also meet the PCT novelty and inventive step requirements.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. In step (k) of claim 1, it is stated that steps (a) to (c) are carried out at a higher material web speed than steps (d) to (j). However, it is unclear what material web speed is meant (PCT Article 6).

Consequently, claim 1 should specify that the transport speed of the material web (see application documents, page 5, paragraph 1) is meant.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

BOXES III AND IVBOX III

Non-establishment of opinion with regard to novelty,
inventive step and industrial applicability

1. The applicant is advised that the subject matter of claims 3-12, 14 and 15 has not been examined because no international search report has been established for said claims (PCT Rule 66.1(e) and 66.2(a)(vi)).

BOX IV

Lack of unity of invention

1. The International Searching Authority has determined that this international application contains multiple (groups of) inventions, as follows:

I. claims 1, 4-8, 14-17
process for producing a printed product

II: claims 2, 4-15, 18-20
further processing device for a web-fed
printing press

The reasons therefor are as follows.

2. The search yielded the following prior art

Supplemental Box

document which is relevant to the assessment of unity of invention:

D1: US-A-3 948 504

Document D1 (see, in particular, column 2, line 26 - column 6, line 56; figures 1-3) discloses:

- a process for producing a printed product, the process having the following steps:
 - (a) a material web is unwound from a first roller (11-14);
 - (b) the material web is printed;
 - (c) the printed material web is wound so as to form a new roller (21-24);
 - (d) a first printed material web (29) is unwound from a roller (28);
 - (e) a second printed material web (30) is unwound from another roller;
 - (f) the material webs (29, 30) are joined in a superstructure;
 - (g) each of the material webs (29, 30) is subdivided into a plurality of web sections (32);
 - (h) the web sections (32) are mixed by an angle bar arrangement (33, 82a-c);
 - (i) the mixed web sections (32) are longitudinally folded;
 - (j) the web sections (32) are transversely cut and folded (claim 1).

Supplemental Box

- a further processing device for a web-fed printing press, the device having the following features:
 - (a) a plurality of roller changers (28) are provided for unwinding printed material webs (29, 30);
 - (b) a draw-in mechanism (56-64) is arranged after each roller changer;
 - (c) a longitudinal cutting device (31) is arranged directly after the draw-in mechanisms for cutting the material web into web sections (32);
 - (d) an angle bar arrangement (33, 82a-c) is provided after the longitudinal cutting device (31);
 - (e) at least one former (8-91), one transverse cutting device (98, 99) and at least one transverse folding apparatus are arranged after the angle bar arrangement (claim 2).

A comparison of the present groups of claims with the citation shows that the following features make a contribution over the prior art and can therefore be regarded as special technical features under PCT Rule 13.2:

group I: steps (a) to (c) are carried out at a higher web speed than steps (d) to (j).

group II: each roller changer of the further processing installation has its own position-controlled electric drive; a controller controls

Supplemental Box

these electric drives in such a way that successive and identical printed images on two material webs match one another or are kept at a constant distance, i.e. in registration.

3. The special technical features can be considered to solve the following problems:

group I: increase in production speed

group II: providing a suitable drive for the roller changer.

These are different problems.

4. The examination also puts into question whether any possibly common special technical features result from a technical effect, since the technical effect of the first group consists in increasing production flexibility, while the technical effect of the second group should be considered to be that of keeping in registration identical printed images on two material webs.

This shows that no corresponding technical effect is achieved either. As a result, no technical relationship between the inventions involving a single general inventive concept can be determined, either on the basis of the problem addressed by each of the inventions or on the basis of the solutions defined by the special technical features of each invention.

5. Said groups of claims therefore lack the unity of

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Supplemental Box

invention required by PCT Rules 13.1 and 13.2,
either on the basis of their special technical
features or on the basis of the problems solved.